BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Diploma in Engineering Pearson BTEC International Level 3 Diploma in Electrical/Electronic Engineering Pearson BTEC International Level 3 Diploma in Mechanical Engineering Pearson BTEC International Level 3 Diploma in Digital Engineering Pearson BTEC International Level 3 Extended Diploma in Engineering Pearson BTEC International Level 3 Extended Diploma in Electrical/Electronic Engineering Pearson BTEC International Level 3 Extended Diploma in Mechanical Engineering Pearson BTEC International Level 3 Extended Diploma in Digital Engineering
Unit number and title	**Unit 20: Analogue Electronic Circuits**
Learning aim(s)	**D:** Review the development of analogue electronic circuits and reflect on own performance
Assignment title	3 Lessons learnt exploring single function analogue circuits
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You have collected all the evidence and completed the tasks your manager has asked of you to do as part of your Apprenticeship. The final thing you need to do is prepare for your final review meeting with your Training Manager. To help you prepare for the meeting, your Manager would like you to put together a 'lessons learnt' report in which you can identify what went well, what could have gone better and what you can take forward to the next stage of your development as a professional engineer.

Task 1	You have been asked to review and reflect on the practical activities you have carried out when investigating and exploring analogue circuits. You now need to produce a short report that considers the 'lessons learnt' during the process. **To do this:** You will need to collate all of your work for Assignments 1 and 2 into a single portfolio. You should then review and reflect on the activities that have been completed for assignments 1 and 2, and make notes about what went well and what improvements could be made. You will also need to consider what you would do differently next time. You will then: Prepare a short 'lessons learnt' report that includes the lessons learnt from: • exploring analogue circuits, including:

	○ health and safety skills, such as managing electrical hazards. This could include electric shock and emergency actions, using appropriate personal protective equipment and keeping the work area clean and tidy ○ analogue electronic circuit development skills, such as: identifying components and their characteristics, schematic capture, simulation, quality control methods and construction methods ○ general engineering skills, such as mathematics and interpreting drawings, use of IT and CAD. • your personal performance, including: ○ time planning and management to complete all the different activities in an appropriate time and order ○ communication and literacy skills to follow and implement instructions appropriately, interpret documentation and communicate effectively with others in writing and orally ○ commercial and customer awareness to ensure the analogue circuits are fit for purpose and meet the brief. Your report should clearly differentiate between statements of fact and opinions.
Checklist of evidence required	A portfolio of learner evidence generated while exploring analogue electronic circuits. A 'lessons learnt' report reviewing the processes and reflecting on your own performance. The report will focus on what went well and what did not go so well when exploring analogue electronic circuits, reviewing the processes and reflecting on own performance.

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
20/D.D3	Demonstrate consistently good technical understanding and analysis of analogue circuit development, including the application of relevant behaviours and general engineering skills to a professional standard.
20/D.M5	Recommend improvements to the development of the analogue circuit and to the relevant behaviours applied.
20/D.P6	Explain how health and safety, design, build and general engineering skills were effectively applied during the development of the analogue circuit.
20/D.P7	Explain how relevant behaviours were effectively applied during the development of an analogue circuit.

Sources of information to support you with this Assignment	**Books** Reflective writing; Wiiliams K, Wooliams M, Spiro J; Palgrave McMillan (2012); ISBN 978 0 230 37725 7 Report writing; Reid M; Palgrave McMillan (2012); ISBN 978 0 230 37655 7 Electronics: A systems approach; Storey N; Prentice Hall (2013); ISBN-13: 978-0273773276 Practical Electronics for Inventors; Scherz P Monk S; McGraw-Hill Education TAB (2016); ISBN-13: 978-1259587542 Electronics; Sparkes JJ et al; Nelson Thornes Ltd (2003); ISBN 0 7487 7036 4 The Art of Electronics; Horowitz P, Hill W; Cambridge University Press (2015); ISBN-13: 978-0521809269 Learning the Art of Electronics: a hands-on lab course; Hayes TC, Horowitz P; Cambridge University Press (2016); ISBN-13: 978-0521177238 BTEC Nationals Engineering Student Book + Activebook: For the 2016 Specifications (BTEC Nationals Engineering 2016); Buckenham A et al; Pearson Education (2016); ISBN-13: 978-1292141008 Electronics; Sparkes JJ et al; Nelson Thornes Ltd (2003); ISBN 0 7487 7036 4 **Websites** electronics-tutorials.ws qualifications.pearson.com/en/support/published-resources.html#step1